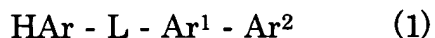


REMARKS

Claims 1-21, as amended, remain herein. Claims 1, 2, 12 and 15 have been amended. New claim 21 has been added. Support for the amendments and the new claims may be found throughout the specification (see, e.g., compounds 1-1 through 1-21 at pages 24-25; formula (43) at page 17; and page 70, lines 5-9 of the specification). Claim 15 has been amended for clarity.

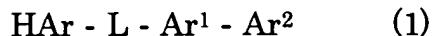
Applicants' claim 1 recites a derivative of heterocyclic compound having nitrogen atom represented by general formula (1):



wherein HAr represents a heterocycle having nitrogen atom, which has 3 to 40 carbon atoms and which may have a substituent; L represents a single bond, an arylene group having 6 to 60 carbon atoms and may have a substituent, a heteroarylene group having 3 to 60 carbon atoms and may have a substituent or a fluorenylene group which may have a substituent; Ar¹ represents a divalent aromatic hydrocarbon group having 10 to 60 carbon atoms and may have a substituent; Ar² represents an aryl group having 6 to 60 carbon atoms and may have a substituent, with the proviso that Ar² is not substituted with a heteroaryl group.

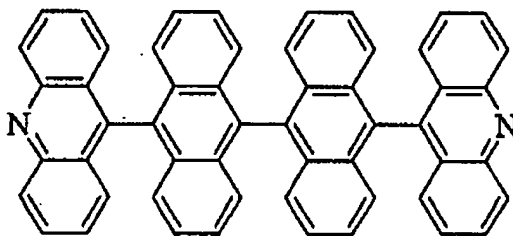
1. Claims 12 and 15 have been amended to moot the objections thereto.
2. Claims 1-5, 8 and 14-17 were rejected under 35 U.S.C. § 102(b) over Tamano et al. JP 11-111458. The Office Action alleges that Tamano's compound 6 meets the limitations of applicants' claim 1.

Applicants' claim 1 recites a derivative of heterocyclic compound having nitrogen atom represented by general formula (1):



wherein Ar² represents an aryl group having 6 to 60 carbon atoms and may have a substituent, with the proviso that Ar² is not substituted with a heteroaryl group.

Tamano does not disclose applicants' claimed derivative of heterocyclic compound represented by general formula (1). Tamano's compound 6 is the following:

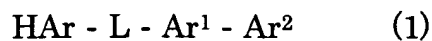


Unlike applicants' claimed Ar² group, Tamano's compound 6 discloses a heteroaryl group or an aryl group substituted with a heteroaryl at the Ar² position.

Thus, Tamano does not disclose all elements of applicants' claims, and therefore is not an adequate basis for a rejection under 35 U.S.C. § 102(b).

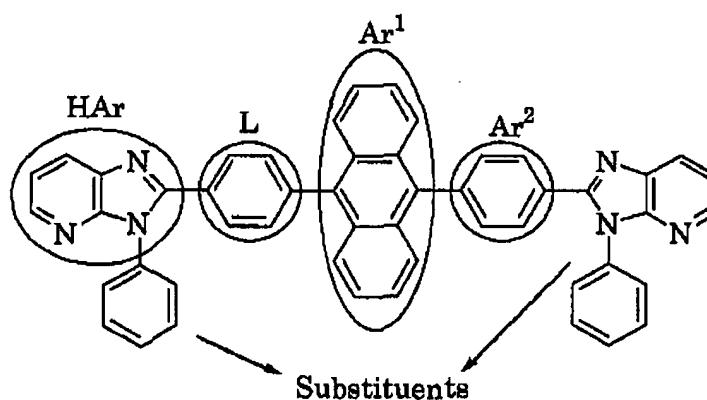
3. Claims 1-4, 6-8 and 14-18 were rejected under 35 U.S.C. § 102(b) over Okada et al. JP 2001-335776. The Office Action states that Okada's compounds 5, 48 and 97 meet the limitations of applicants' claim 1.

Applicants' claim 1 recites a derivative of heterocyclic compound having nitrogen atom represented by general formula (1):

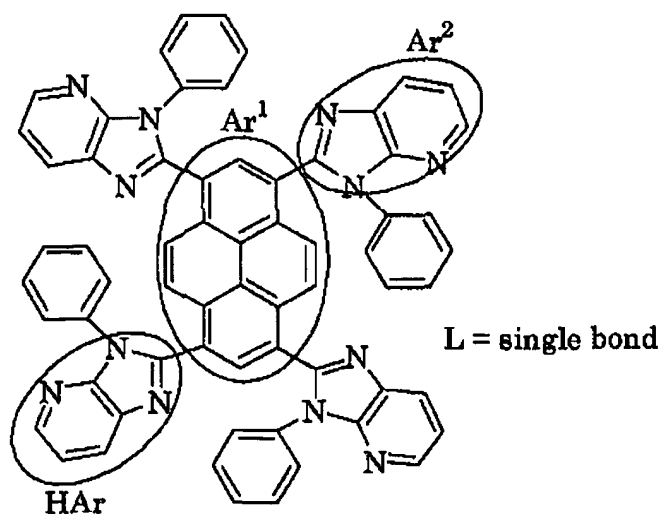


wherein Ar¹ represents a divalent aromatic hydrocarbon group having 10 to 60 carbon atoms and may have a substituent; Ar² represents an aryl group having 6 to 60 carbon atoms and may have a substituent, with the proviso that Ar² is not substituted with a heteroaryl group.

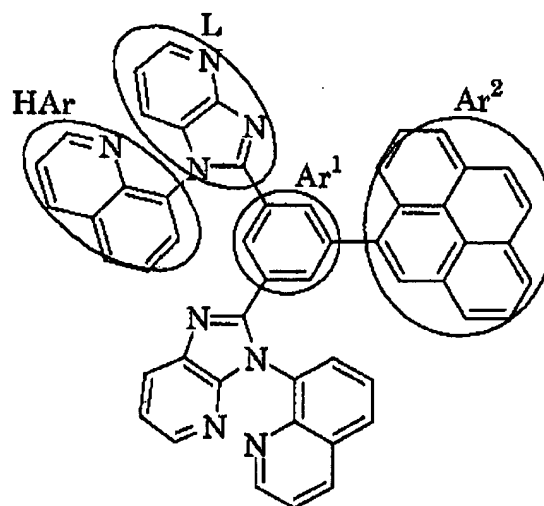
Okada does not disclose applicants' claimed derivative of heterocyclic compound represented by general formula (1). Okada's compounds 5, 48 and 97 have the following formulae:



Okada Compound 5



Okada Compound 48



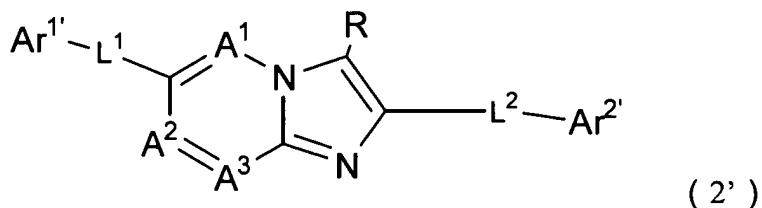
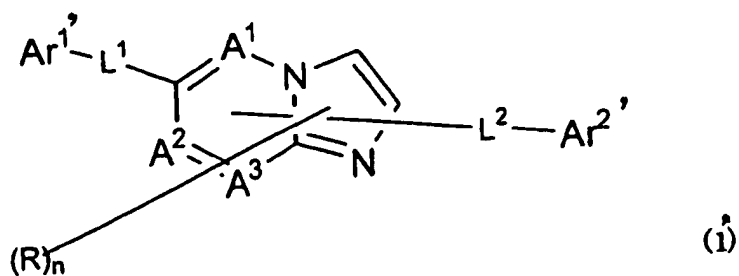
Okada Compound 97

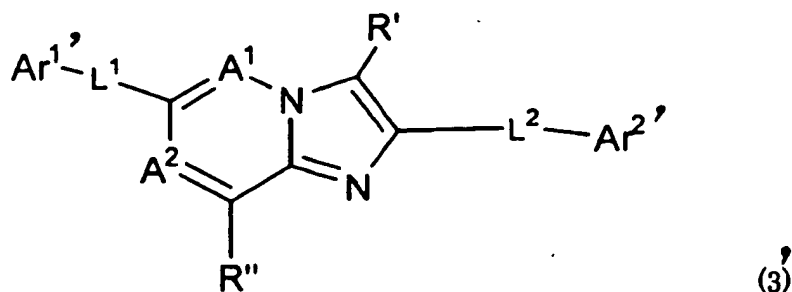
Unlike applicants' claimed Ar^2 group, Okada's compounds 5 and 48 disclose a heteroaryl group or an aryl group substituted with a heteroaryl at the Ar^2 position. In addition, unlike applicants' claimed Ar^1 group, Okada's compound 97 discloses an aromatic hydrocarbon group having less than 10 carbon atoms at the Ar^1 position.

Thus, Okada does not disclose all elements of applicants' claims, and therefore is not an adequate basis for a rejection under 35 U.S.C. § 102(b). Applicants respectfully request reconsideration and withdrawal of this ground of rejection.

4. Claims 9-13 were rejected under 35 U.S.C. § 103(a) over Nakatsuka et al. JP 2001-035664.

Each of applicants' claims 9-11 recites a derivative of heterocyclic compound having nitrogen atom represented by general formula (1'), (2'), or (3'):





wherein Ar^{1'} represents a substituted or unsubstituted aryl group having 6 to 60 nuclear carbon atoms or a substituted or unsubstituted heteroaryl group having 3 to 60 nuclear carbon atoms; and at least one of the groups represented by Ar^{1'} and Ar^{2'} is a substituted or unsubstituted condensed cyclic group having 10 to 60 nuclear carbon atoms or a substituted or unsubstituted condensed mono-heterocyclic group having 3 to 60 nuclear carbon atoms.

Nakatsuka discloses a broad genus and applicant's claimed compounds are species within that genus. The fact that a claimed species or subgenus is encompassed by a prior art genus is not sufficient by itself to establish a prima facie case of obviousness. See In re Baird, 16 F.3d 380, 382 (Fed. Cir. 1994); MPEP 2144.08.

Applicant's claimed formulae do not read on any of Nakatsuka's exemplified compounds. In addition, Nakatsuka does not teach or suggest a compound represented by general formulae (1'), (2'), or (3') meeting both the following claimed limitations: (i) Ar^{1'} represents a substituted or unsubstituted aryl group having 6 to 60 nuclear carbon atoms or a substituted or unsubstituted heteroaryl group having 3 to 60 nuclear carbon atoms; and (ii) at least one of the groups represented by Ar^{1'} and Ar^{2'} is a substituted or unsubstituted condensed cyclic group having 10 to 60 nuclear carbon atoms or a substituted or unsubstituted condensed mono-heterocyclic group having 3 to 60 nuclear carbon atoms.

Alleged obviousness, based on structural similarity, is rebuttable by proof that the

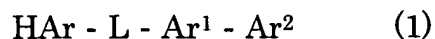
claimed compounds possess unexpectedly advantageous or superior properties. MPEP § 2144.09(VII) (citing In re Papesch, 315 F.2d 381 (C.C.P.A. 1963) and In re Wiechert, 370 F.2d 927 (C.C.P.A. 1967)).

Applicants' claimed organic electroluminescent device exhibits superior and unexpected properties, namely, excellent luminance and higher light efficiency even at lower voltage. For instance, the absence of the claimed Ar¹ group results in a significantly lower luminance and efficiency of light emission (compare the device of Examples 18 to 21 to that of Comparative Example 3 (showing excellent luminance and higher light efficiency even at lower voltage)).

Furthermore, Nakatsuka discloses nothing that would have suggested applicants' claimed invention to one of ordinary skill in the art. There is no disclosure or teaching in Nakatsuka, or anything else in this record, that would have suggested the desirability of modifying any portions thereof effectively to anticipate or suggest applicants' presently claimed invention. Thus, applicants' claims are not obvious over Nakatsuka. Applicants respectfully request reconsideration and withdrawal of this ground of rejection.

5. Claims 19-20 were rejected under 35 U.S.C. § 103(a) over Okada in view of Kido et al. U.S. Patent 6,013,384.

As discussed above, Okada does not teach or suggest all limitations of applicants' claims. Specifically, Okada does not teach or suggest a derivative of heterocyclic compound having nitrogen atom represented by general formula (1):



wherein Ar¹ represents a divalent aromatic hydrocarbon group having 10 to 60 carbon atoms and may have a substituent; Ar² represents an aryl group having 6 to 60 carbon atoms and may have a substituent, with the proviso that Ar² is not substituted with a heteroaryl group.

Kido does not teach or suggest what is missing from Okada. Kido says nothing about a derivative of heterocyclic compound having nitrogen atom represented by general formula (1), wherein Ar¹ represents a divalent aromatic hydrocarbon group having 10 to 60 carbon atoms and may have a substituent; Ar² represents an aryl group having 6 to 60 carbon atoms and may have a substituent, with the proviso that Ar² is not substituted with a heteroaryl group.

Furthermore, Okada and Kido disclose nothing that would have suggested applicants' claimed invention to one of ordinary skill in the art. There is no disclosure or teaching in either Okada, Kido, or anything else in this record, that would have suggested the desirability of modifying any portions thereof effectively to anticipate or suggest applicants' presently claimed invention. Thus, applicants' claims are not obvious over Okada in view of Kido. Applicants respectfully request reconsideration and withdrawal of this ground of rejection.

6. Claims 1-20 were provisionally rejected for non-statutory obviousness-type double patenting over claim 1 of U.S. Patent Application Serial No. 11/691888, claim 1 of U.S. Patent Application Serial No. 11/566008, claim 1 of U.S. Patent Application Serial No. 10/547312, and claim 1 of U.S. Patent Application Serial No. 10/594323. Applicants respectfully defer responding to this provisional rejection until claims of the present application are deemed otherwise allowable.

Serial No.: 10/541,745
Attorney's Docket No.: 28955.4028

Accordingly, this application is now fully in condition for allowance and a notice to that effect is respectfully requested. The PTO is hereby authorized to charge/credit any fee deficiencies or overpayments to Deposit Account No. 19-4293. If further amendments would place this application in even better condition for issue, the Examiner is invited to call applicants' undersigned attorney at the number listed below.

Respectfully submitted,

STEPTOE & JOHNSON LLP

Date: May 19, 2008



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